

Scores  
K Clock  
8 4

Bob,

### ASCII KEYBOARD ADD-ON

The wiring for the UART shown in the diagram is correct. Pin # 33 is shown grounded twice (once is enough). The connection to the cassette interface will probably work. However, it is not good practice to tie IC outputs together and could cause erratic operation. A better design would isolate the tape and keyboard functions with a switch.

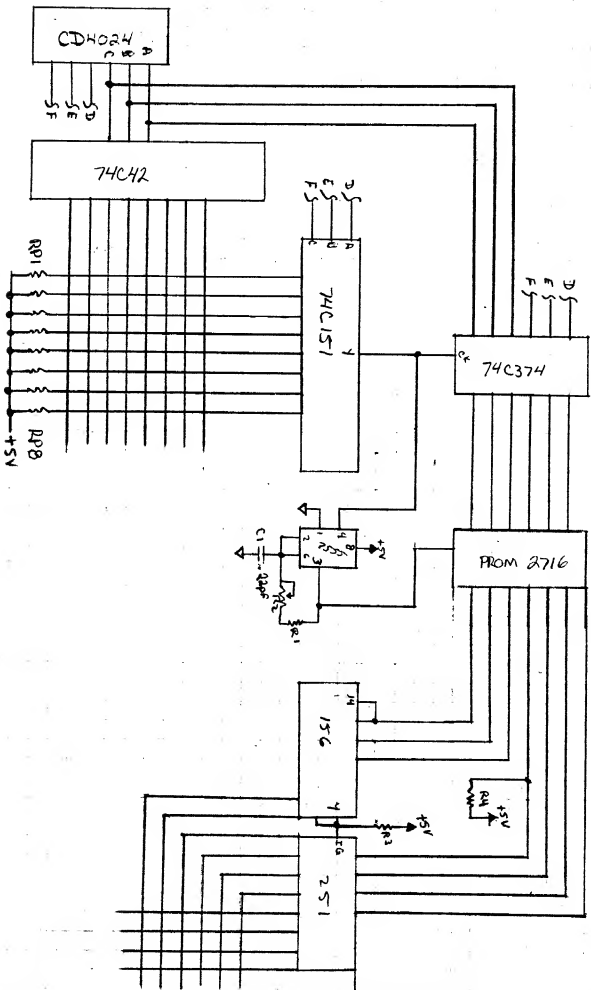
### 1K STATIC RAM EXPANSION

This is an excellent way to get another thousand bytes of memory. I have a very similar plug-on for my system. The only significant difference is that mine has a dip switch for selecting the base address.

AL

Keyboard I/F

12/15/82



DEC. 83

ROBERT FABRIS

3626 MORRIE DRIVE.

SAN JOSE, CA. 95127

DEAR ROBERT,

I JUST RECEIVED THE DECEMBER  
ISSUE OF THE ARCADIAN AND NOTICED  
THE ARTICLE "SLAP ON A KEYBOARD".  
WELL I BUILT A KEY BOARD THAT  
CONNECTS VIA 10 WIRES IN PARALLEL  
WITH THE BALLY KEYBOARD.

IT IS A RELAY OPERATED UNIT  
USING IT'S OWN 5VDC POWER SUPPLY  
AND IS ISOLATED FROM THE BALLY VIA  
THE RELAY CONTACTS. YOU NEED ONLY  
OPERATE ONE KEY FOR LETTERS, WORDS  
STILL NEED TWO KEY'S, A SHIFT AND  
WORD KEY. IT COST ME ABOUT \$150.00  
IN PARTS TO MAKE IT. I HAD TRIED TO  
SELL IT IN THE MICHIGAN NEWSLETTER  
WITH NO LUCK.

(2)

I WAS ASKING \$100.<sup>00</sup> FOR IT  
OR SOMEONE TO MAKE AN OFFER.  
IF YOU KNOW OF ANYONE THAT  
WOULD BE INTERESTED OR IF YOU  
HAVE ANY QUESTIONS YOURSELF PLEASE  
CALL OR WRITE.

SINCERELY,

MICHAEL PAWLOWSKI  
9294 QUANDT  
ALLEN PARK, MICH. 48101  
(313) 388-2162.

P.S. I CAN NOT BELIEVE THE IDEA I  
USED COULDN'T BE USED USING A  
SMALL PROCESSOR TO DO THE SAME  
THING.

- ALSO THE ADD-ON KEYBOARD DOES  
NOT INTERFERE WITH THE NORMAL  
KEYPAD FOR GAMES.



8-19-81

ARCADIAN 3.11  
BOB FABRIS  
3626 MORRIS Dr.  
SAN JOSE, CA. 95127

Hi BoB

I received your last issue (Vol 3. No 10) rather chewed up & Scotch Taped with the words stamped on it, DAMAGED BY CANCELLING MACHINE.

PLEASE send me another copy to replace it since I keep a file of all the issues.

Enclosed is a payment for postage & handling. Also I want to thank you for the help in getting my full-sized keyboard operational. Thank Mr. Rathnell (sic?) for his patience in really helping me. (in operation for over 1 month)

I enclosed a little more detailed diagram of the keyboard circuitry since you mentioned you couldn't get yours working either. Pay attention to the programmed UART format pins (34-38) also the serial output line. Mine had to be reduced from 2.2K to 1.2-1.5K resistance to work.

All functions work properly (Bally Basic functions) except four. These are Halt, Pause, GO+IO and Erase. This last one is important for erasing (back space) mistakes without rewriting the instruction line all over again, especially long ones.

The Diode Circuitry Add on will give you Erase using two keys AT ONCE method. (Like the record feature on a cassette to prevent accidental Erasure)

They may be a automatic way of doing this, but since I was anxious to use the keyboard, I used shortcuts.

The Auto-reset circuit (or manual) eliminates a ? mark on first entry although other steps can be used to correct this problem (Erase) This happens only on 1st entry, after that you are on your way. (on power-up-turn on 5V supply)

I derived power & cassette interface thru a hand-controller cable without any adverse effects. All the circuitry (pots, UART D-Q Converter, switches, etc.) are enclosed in the keyboard cabinet. The cable plugs in at the rear. IF you have any comments about this project contact me after 8:00 PM or write.

PH: (415) 826-0718

P.S. Excuse the mistakes

Roy Dal Poggetto  
57 Jersey St.  
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94114